

WHAT IS CLAIMED IS:

1           1.     In a packet communication system having a plurality of independently  
2     operating nodes, including a local node, which have limited available communication time  
3     and which are capable of monitoring busy time and idle time in cyclical epochs, a method for  
4     determining a load on the communication time of the local node in communication with a  
5     plurality of other nodes comprising:

6                 synchronizing periods of load measurement among nodes to a communication  
7     epoch; and

8                 factoring out the load attributed by the local node to the global load.

1           2.     In a packet communication system having a plurality of independently  
2     operating nodes, including a first node and a second node, which have limited available  
3     communication time and which are capable of monitoring busy time and idle time in cyclical  
4     epochs, a method for determining a load on the communication time of the first node with  
5     said second node comprising:

6                 broadcasting from the first node a first heartbeat and thereupon resetting a  
7     global counter at the first node at a first epoch;

8                 receiving at the second node said first heartbeat and resetting a second node  
9     counter for the first node;

10                transferring traffic of the first node with the second node and accumulating  
11     total traffic duration in the global counter at the first node;

12                receiving traffic from the first node at the second node and accumulating  
13     second node traffic duration in a first node counter at the second node;

14                broadcasting a second heartbeat from the first node at the beginning of the  
15     next epoch, including value of the global counter, and resetting the global counter for a  
16     second epoch;

17                receiving the second heartbeat and the global counter value at the second  
18     node; and

19                determining a net loading for the first node as viewed by the second node by  
20     factoring out contribution to the global counter value during the first epoch.

1           3.     The method according to claim 2 further including:  
2                 averaging the net loading over several epochs.

1 4. The method according to claim 2 further including:

2 using the net loading in selecting a best path for traffic of the second node.